

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of forming an image, comprising:

 forming a dither matrix that has a plurality of predetermined patterns, each of the plurality of predetermined patterns having a plurality of tiled elements with each tiled element having a threshold value;

 offsetting each of the predetermined patterns when forming the dither matrix such that a first predetermined pattern is offset from a second predetermined pattern; and

 consecutively filling the predetermined patterns in accordance with an order of the predetermined patterns to create a desired shade, wherein the predetermined patterns are arranged such that at least a shade level at an end of a row of the first predetermined pattern, that is referred to first for scanning, is adjacent to a next higher shade level of the second predetermined pattern.
2. (Previously Presented) The method of claim 1, wherein the dither matrix is structured by orderly tiling a plurality of dither patterns.
3. (Currently Amended) The method of claim 1, wherein the predetermined patterns are arranged such that a shade level area at an end, with respect to a scanning ~~direction~~direction, of at least one row of the first predetermined pattern is adjacent to a next higher shade level area of the second predetermined pattern.
4. (Cancelled)
5. (Previously Presented) The method of claim 1, wherein shade level areas in each predetermined pattern in the dither matrix are arranged sequentially in a scanning direction corresponding with shade levels.

6. (Previously Presented) The method of claim 1, wherein the predetermined patterns are identical in an arrangement of shade level areas, with the first predetermined pattern shifted from the second predetermined pattern.

7. (Previously Presented) The method of claim 1, wherein shade level areas in each row in each predetermined pattern are aligned sequentially in a scanning direction corresponding with shade levels.

8. (Previously Presented) The method of claim 1, wherein the predetermined patterns are arranged so that a shade level area at a head of a row that is referred to first for scanning is adjacent, in a direction perpendicular to a scanning direction, to a shade level area at a head of a row that is referred to next.

9. (Previously Presented) The method of claim 1, wherein each of the predetermined patterns includes a rectangular portion made up of rectangularly arranged shade level areas, and at least one portion extending from the rectangular portion and made up of at least one shade level area.

10. (Previously Presented) The method of claim 1, wherein the shading applies to both monochrome and color images and to a density of both monochrome and color images.

11. (Currently Amended) An apparatus for forming an image, comprising:
an image forming device, wherein the image forming device forms a dither matrix that has a plurality of predetermined patterns, each of the plurality of predetermined patterns having a plurality of tiled elements with each tiled element having a threshold value, which are consecutively filed in accordance with an order of the predetermined patterns to create a desired shade, with each predetermined pattern offset when forming the dither matrix such that a first predetermined pattern is offset from a second predetermined pattern, and the predetermined patterns are arranged such that at least a shade level at an end of a row of the

first predetermined pattern, that is referred to first for scanning, is adjacent to a next higher shade level of the second predetermined pattern.

12. (Previously Presented) The apparatus of claim 11, wherein the dither matrix is structured by orderly tiling a plurality of dither patterns.

13. (Previously Presented) The apparatus of claim 11, wherein the predetermined patterns are arranged such that a shade level area at an end, with respect to a scanning direction, of at least one row of the first predetermined pattern is adjacent to a next higher shade level area of the second predetermined pattern.

14. (Cancelled)

15. (Previously Presented) The apparatus of claim 11, wherein shade level areas in each predetermined pattern in the dither matrix are arranged sequentially in a scanning direction corresponding with shade levels.

16. (Previously Presented) The apparatus of claim 11, wherein the predetermined patterns are identical in an arrangement of shade level areas with the first predetermined pattern shifted from the second predetermined pattern.

17. (Previously Presented) The apparatus of claim 11, wherein shade level areas in each row in each predetermined pattern are aligned sequentially in a scanning direction corresponding with shade levels.

18. (Previously Presented) The apparatus of claim 11, wherein the predetermined patterns are arranged so that a shade level area at a head of a row that is referred to first for scanning is adjacent, in a direction perpendicular to a scanning direction, to a shade level area at a head of a row that is referred to next.

19. (Previously Presented) The apparatus of claim 11, wherein each of the predetermined patterns includes a rectangular portion made up of rectangularly arranged

shade level areas, and at least one portion extending from the rectangular portion and made up of at least one shade level area.

20. (Previously Presented) The apparatus of claim 11, wherein the shading applies to both monochrome and color images and to a density of both monochrome and color images.

21. (Currently Amended) A computer readable medium that stores a program for forming a dither pattern, the program comprising:

a routine for establishing a number of gradations of print;

a routine for establishing a tile block having a number of areas equal to the number of gradations, the tile block having at least a center square block;

a routine for numbering the areas of the tile block; and

a routine for offsetting adjacent tile blocks such that an area of at least one row of a first tile block and an area of a row of a second offset tile block are numbered sequentially; and

a routine for consecutively filling the tile blocks in accordance with an order of the tile blocks to create a desired shade, wherein the tile blocks are arranged such that at least a shade level at an end of a row of the first tile block, that is referred to first for scanning, is adjacent to a next higher shade level of the second offset tile block.

22. (Previously Presented) The medium according to claim 21, wherein the center square block has nine areas in a three by three matrix and the tile block is further formed with at least one additional area extending from a top or bottom row of the matrix.

23. (Previously Presented) The medium according to claim 21, wherein the center square block has nine areas in a three by three matrix and the tile block is further formed with an area at each end of a center row and a center column of the matrix.

24. (Previously Presented) The medium according to claim 21, wherein the center square block is a single area and the tile block is formed as a cross with an area extending from each side of the single area.